CEC-8 (Revised 04/16)



BULLETIN OPPORTUNITY

CLASSIFICATION: UTILITY ENGINEER

Training and Development Assignments may be considered.

TENURE: **PERMANENT**

TIME BASE: FULL TIME

SALARY: **RANGE A - \$5,327 - \$6,352**

RANGE B - \$6,100 - \$7,632

RANGE C - \$7,055 - \$8,827

RANGE D - \$7,974 - \$9,978

LOCATION: DOWNTOWN SACRAMENTO, CA

ENERGY RESEARCH AND DEVELOPMENT DIVISION

FINAL FILING DATE: UNTIL FILLED

DUTIES/RESPONSIBILITIES: Under the general direction of the Electric Generation System Specialist III (Supervisor) in the Energy Systems Research Office, the incumbent provides engineering support to the Energy Technology Systems Integration and Natural Gas research teams. As such, the incumbent performs mechanical, electrical, and civil engineering work in the design, construction, operation and maintenance of electrical or natural gas energy technology integration system research projects. The incumbent conducts investigations and prepares reports involving engineering economics work which includes studies of capital costs, financial structure, depreciation, physical plant inspections, valuations, revenues, and expenses. The incumbent develops and performs engineering and technical analysis and supports research, development, demonstration and deployment of energy and greenhouse gas reducing technologies funded by the Energy Commission with the goal of determining and documenting technical and economic feasibility, energy savings and benefits. The incumbent contributes engineering skills when reviewing and/or preparing engineering and environmental studies and evaluations. The incumbent is knowledgeable of multiple aspects of engineering such as energy/mass balances, thermodynamics, fluid mechanics, combustion, strength/properties of materials, statistical analyses, testing of equipment, economics and interpretation of technical codes and standards.

• The incumbent: a) reviews and prepares engineering and economic analysis of technologies and designs related to smart grid technologies, distributed energy resources, microgrids, electric vehicles, and natural gas infrastructure; b) evaluates or performs calculations to determine estimated and actual energy savings, greenhouse gas emission reductions, and costs for projects; c) evaluates rate/tariff structures for different technologies; d) conducts detailed engineering analyses of new and emerging technologies to determine potential to increase grid reliability/resiliency, reduce greenhouse gas emissions, increase safety and provide benefits to the electric grid and/or natural gas system; and e) identifies and recommends RD&D for smart grid technologies, distributed energy resources, microgrids, electric vehicles and natural gas infrastructure. The incumbent will perform complex engineering evaluations such as engineering economics, system reliability, quality of service, heat transfer, mechanical methods of power and material transmission, thermodynamics, pump analysis, mass and energy balances, material selection and specifications, performance and suitability of components, efficiency and economics of engineering design options, cost, and performance, power electronics, transmission and distribution equipment/systems, power flow

- systems, and safety and integrity of natural gas infrastructure. The incumbent will read and interpret plans, drawings, specifications and regulations governing energy and natural gas systems, as it relates to the installation of GHG reduction equipment. The incumbent also provides technical assistance to other staff in analyzing engineering problems.
- The incumbent serves as the project manager or may act as a technical lead over other technical personnel on complex engineering projects to support adoption and demonstration of cutting-edge and emerging technologies and impacts to the electricity grid and natural gas infrastructure, including interactions to increase grid resiliency and reliability and decarbonization of services; transmission and distribution systems, major electrical installations as applied to underground and overhead electric delivery systems, communications, automation and control systems, advanced power electronics, energy storage, microgrids and technologies such as natural gas sensors, risk assessment tools, and right of way encroachment technologies used to improve the safety and integrity of natural gas systems (i.e., pipelines and storage). The incumbent evaluates research project performance, provides quality control/assurance, reviews interim research products (e.g. results of surveys, test results, design drawings, etc.), evaluates technical changes to project budget/scope, participates in critical project reviews/site visits, and reviews/approves final products from completed projects.

For the full duty statement, go to: https://www.energy.ca.gov/careers/jobs.php.

DESIRABLE EXPERIENCE/QUALIFICATIONS: The successful applicant should have

- Demonstrated ability to conduct engineering, economic, and policy research and analysis, identify issues, and recommend effective courses of action.
- Demonstrated experience analyzing data and developing conclusions, including the use of spreadsheets and other quantitative tools for data analysis and graphical representation of results.
- Excellent oral skills and ability to effectively communicate in written form (i.e., technical reports, memos, letters, and comments).
- Demonstrated ability to handle multiple assignments with accuracy, to prioritize and meet deadlines, and to work well in a team environment with the ability to coordinate interdisciplinary projects.
- Demonstrated ability to establish and maintain cooperative and positive working relationships with others, both inside and outside the agency.
- Ability to communicate complicated information in a simple, consumer-friendly manner.

WHO MAY APPLY: Interested applicants must submit a completed Standard State Application (Form STD. 678) with an original signature to the contact/address listed below. **Electronic** applications will also be accepted. You must clearly indicate the basis of your eligiblity (i.e. list, transfer, SROA/Surplus, reinstatement, etc.) including the following, RPA# 330-064 and Position #535-330-3518-001, in the "Explanation Section" of the STD 678. Resumes are welcome but do not take the place of the completed State Application STD 678. Applications will be screened for experience and only the most qualified will be contacted for an interview. NOTE: Failure to comply with the filing instructions and incomplete applications received will not be considered.

INTERESTED APPLICANTS SHOULD SUBMIT A COMPLETED STANDARD STATE APPLICATION (FORM STD. 678) TO:

SUBMIT APPLICATIONS TO:

Personnel Services Office Attn: RPA #330-064

1516 9th Street, MS-3 Sacramento, CA 95814 Phone: 916-654-4309 California Relay (Telephone) Service for the Deaf or Hearing-Impaired From hTDD Phones: 1-800-735-2929 From Voice Phones: 1-800-735-2922 personnelservices@energy.ca.gov